TRH50A SERIES
50W SWITCHING ADAPTER

Features

* Universal Input Range 90~264VAC
* Meets EN55022 Class B and CISPR/FCC Class B
* Continuous Short Circuit Protection
* Over Voltage Protection
* Meet CoC Tier 2 & DoE Level VI
  (Output Cable Length≦1800mm)
  (TRH50A120, TRH50A150:Output Cable Length≦1220mm)
* No load Power Consumption<150mW

Ordering information

TRH50XXX - -XX E XX

Model No. **DC Plug Type** **OVP** **DC Cable Length and Type**

01: 720mm
02: 1220mm
03: 1800mm
11: 720mm with Ferrite Core
12: 1220mm with Ferrite Core
13: 1800mm with Ferrite Core
* 16AWG / UL1185 FOR 12V,15V,18V,19V
* 18AWG / UL1185 FOR 24V,28V,36V,48V

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE & NOISE NOTE 1	VOLTAGE ACCURACY NOTE 2	LINE REGULATION NOTE 3	LOAD REGULATION NOTE 4	AVERAGE EFFICENCY min. NOTE 5
TRH50A120	12V	4.2A	1%	±2%	±1%	±3%	89%
TRH50A150	15V	3.36A	1%	±2%	±1%	±3%	89%
TRH50A180	18V	2.8A	1%	±2%	±1%	±2%	89%
TRH50A190	19V	2.65A	1%	±2%	±1%	±2%	89%
TRH50A240	24V	2.1A	1%	±2%	±1%	±2%	89%
TRH50A280	28V	1.80A	1%	±2%	±1%	±2%	89%
TRH50A360	36V	1.4A	1%	±2%	±1%	±2%	89%
TRH50A480	48V	1.05A	1%	±2%	±1%	±2%	89%

Specifications are subject to change without notice.

Specifications

INPUT SPECIFICATIONS:

Voltage ..... 90~264Vac
Frequency ..... 47 to 63Hz
Input Current .....1.2A max.
Inrush Current ..... Cold Start @25℃ 50A max. @ 240Vac
Leakage Current ..... 3.5mA max.

OUTPUT SPECIFICATIONS:

Hold-up Time ..... 8ms typ. @115Vac
Short Circuit Protection ..... Continuous(Auto Recovery)
Over Voltage Protection ..... TVS Component to Clamp
Temperature Coefficient ..... ±0.05%/℃

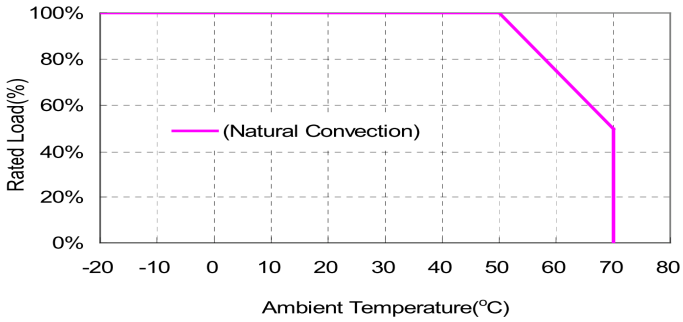
GENERAL SPECIFICATIONS:

Isolation ..... Input to output = 4,242VDC
Operating Temperature ..... -20 ~ 70℃ (see derating curve)
Storage Temperature ..... -20 ~ 85℃
Humidity ..... 93% RH max. Non condensing
Cooling ..... Natural Convection
Switching Frequency ..... 65KHz Typical
MTBF ..... MIL-HDBK-217F, GB, at 25℃/115VAC ..... 200Khrs min.
Altitude 5000m
Dimensions ..... 4.724x2.047x1.220 inches (120.00x52.00x31.00mm)
Weight 300g
AC Inlet IEC320/C14

SAFETY AND EMC:

Emission and Immunity ..... EN55022 Class B, FCC Part 15 Class B
EN61000-6-3,EN61000-3-2,EN61000-3-3
EN55024, EN61204-3, EN61000-6-1
Safety .....Class I, IEC60950-1, EN60950-1, UL60950-1

TRH50A Series Derating Curve

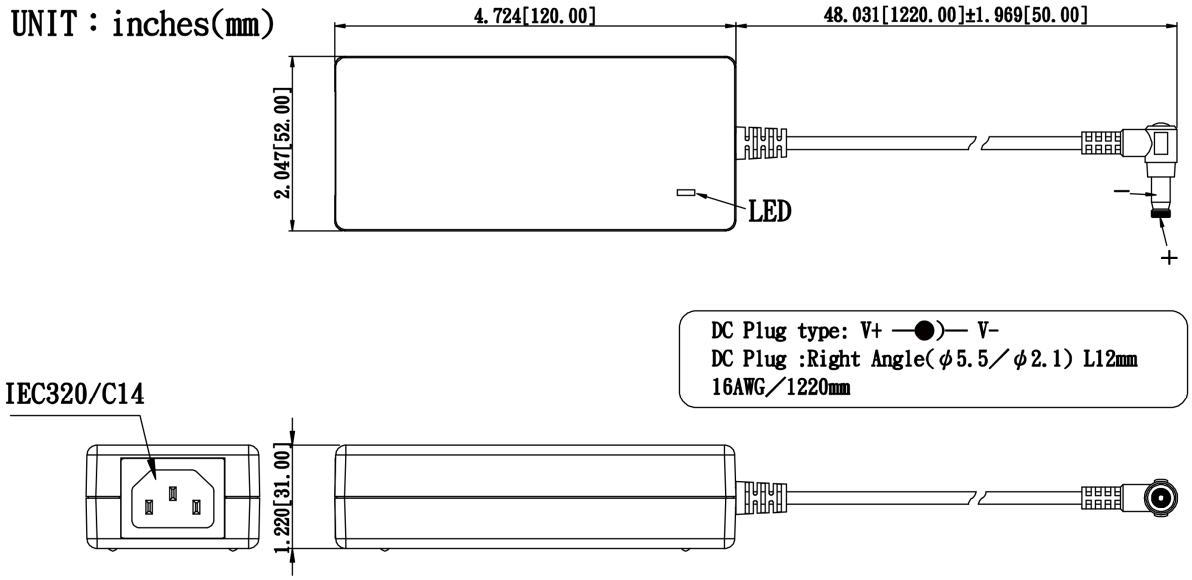


NOTE:

1. Add a 0.1uF ceramic capacitor and a 10uF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.
2. Voltage setpoint at 60% full load.
3. Line regulation measured from 100Vac to 240Vac full load.
4. Load regulation measured from 60% to full load and from 60% to 20% load (60% +/- 40% load).
5. Average Efficiency measured at 25%,50%,75%,100% load and input voltage is 115Vac / 230Vac.

Mechanical Specification

All Dimensions are in inches(mm)
Tolerance:Inches:X.XXX±0.02
Millimeters:X.XX±0.5



Typical at 25°C, nominal line and 75% load, unless otherwise Specified